2-5. Group remote controller (UTY-CGG✳)

- Control and monitoring of up to 8 remote controller group is possible with one group remote controller.
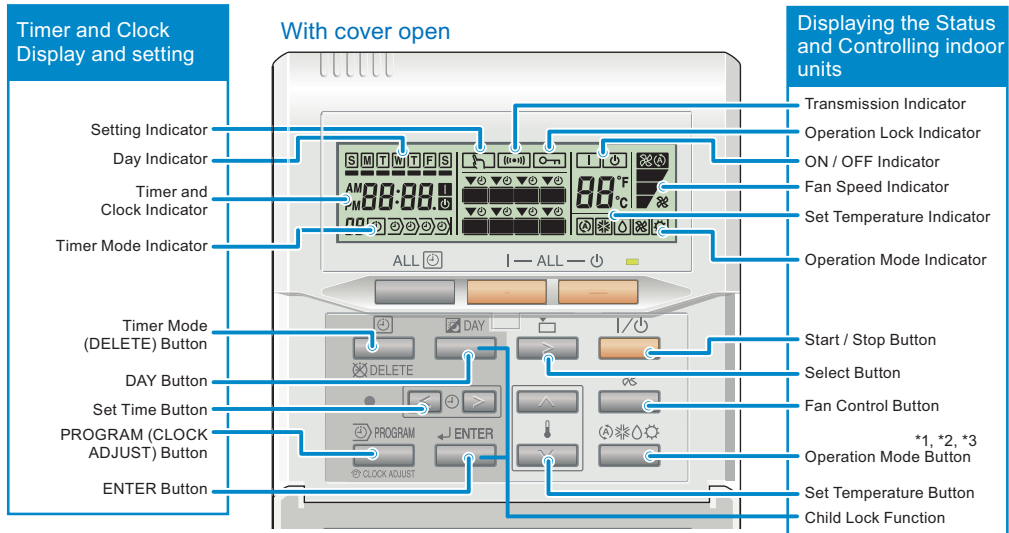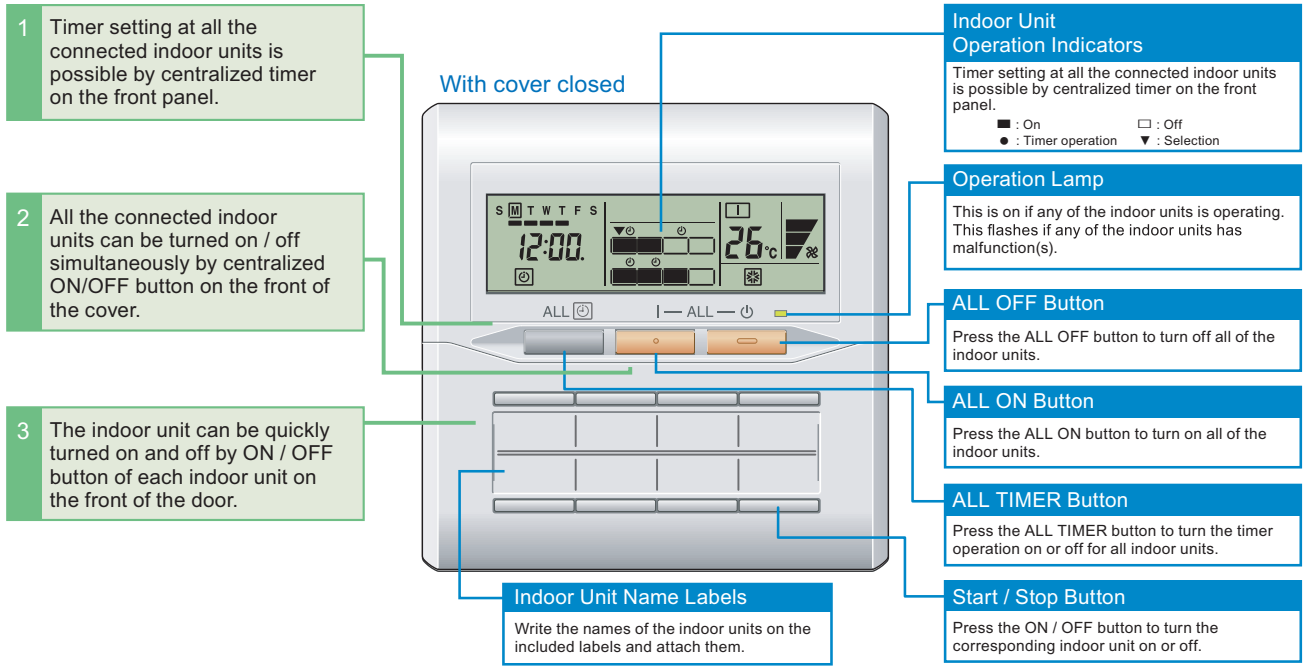- The optional Network converter (UTY-VGGXZ1) allows up to 4 Group remote controllers to be incorporated within the control layout. This flexibility is ideal for a number of different building sizes, types, and applications.
- Up to 64 Group remote controllers (with 16 Network converters UTY-VGGXZ1) can be connected in one VRF network system.
- Start/Stop, operation mode, set temperature, timer control, and fan speed can be controlled/monitored centrally or individually.
- Easy installation with a slim shape with no bulge in the back
- One-touch start/stop operation of each indoor unit is possible. All indoor units can also be easily operated by pressing an All ON, ALL OFF, or ALL TIMER ON/OFF button.

■ Accessory

Name and shape	Q'ty	Application
Label	4	For writing the names of the indoor units that have been registered
Screw	2	For installing the remote controller
Cable tie	1	For remote controller and remote controller cable binding
Installation manual	1	
Operation manual	1	

■ Overview

1 Timer setting at all the connected indoor units is possible by centralized timer on the front panel.

2 All the connected indoor units can be turned on / off simultaneously by centralized ON/OFF button on the front of the cover.

3 The indoor unit can be quickly turned on and off by ON / OFF button of each indoor unit on the front of the door.

With cover closed

Indoor Unit Operation Indicators

Timer setting at all the connected indoor units is possible by centralized timer on the front panel.
■ : On   □ : Off
● : Timer operation   ▼ : Selection

Operation Lamp

This is on if any of the indoor units is operating. This flashes if any of the indoor units has malfunction(s).

ALL OFF Button

Press the ALL OFF button to turn off all of the indoor units.

ALL ON Button

Press the ALL ON button to turn on all of the indoor units.

ALL TIMER Button

Press the ALL TIMER button to turn the timer operation on or off for all indoor units.

Start / Stop Button

Press the ON / OFF button to turn the corresponding indoor unit on or off.

Indoor Unit Name Labels

Write the names of the indoor units on the included labels and attach them.

Timer and Clock Display and setting

With cover open

Displaying the Status and Controlling indoor units

Setting Indicator
Day Indicator
Timer and Clock Indicator
Timer Mode Indicator

Transmission Indicator
Operation Lock Indicator
ON / OFF Indicator
Fan Speed Indicator
Set Temperature Indicator
Operation Mode Indicator

Timer Mode (DELETE) Button
DAY Button
Set Time Button
PROGRAM (CLOCK ADJUST) Button
ENTER Button

Start / Stop Button
Select Button
Fan Control Button
*1, *2, *3
Operation Mode Button
Set Temperature Button
Child Lock Function

*1: "AUTO Ⓐ" is not available for a heat pump model unless it is set up as an administrative indoor unit.
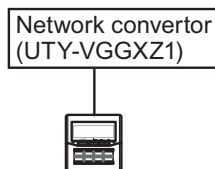
*2: "FAN ✾" is not available for a heat pump model.

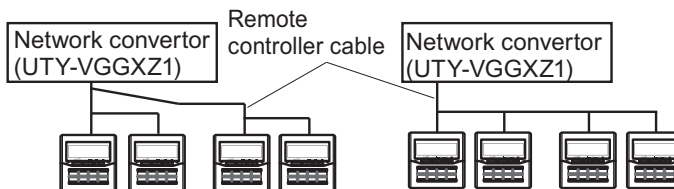*3: "HEAT ☼" is not available for a cooling only model.

■ System diagrams
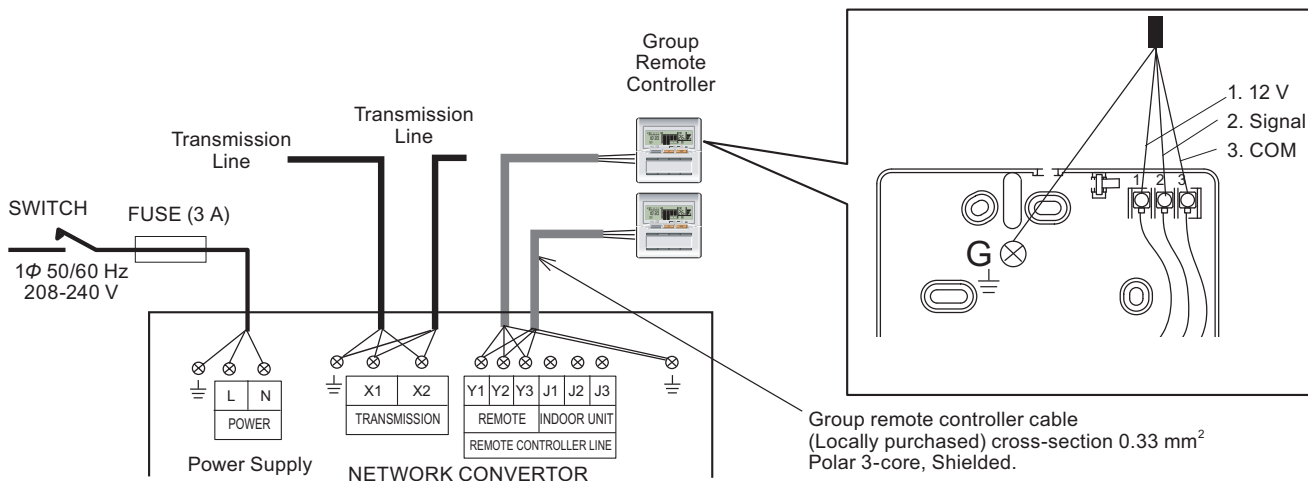
- **When one group remote controller is connected:**

Network convertor
(UTY-VGGXZ1)

- **When multiple group remote controllers are connected:**

Network convertor
(UTY-VGGXZ1)

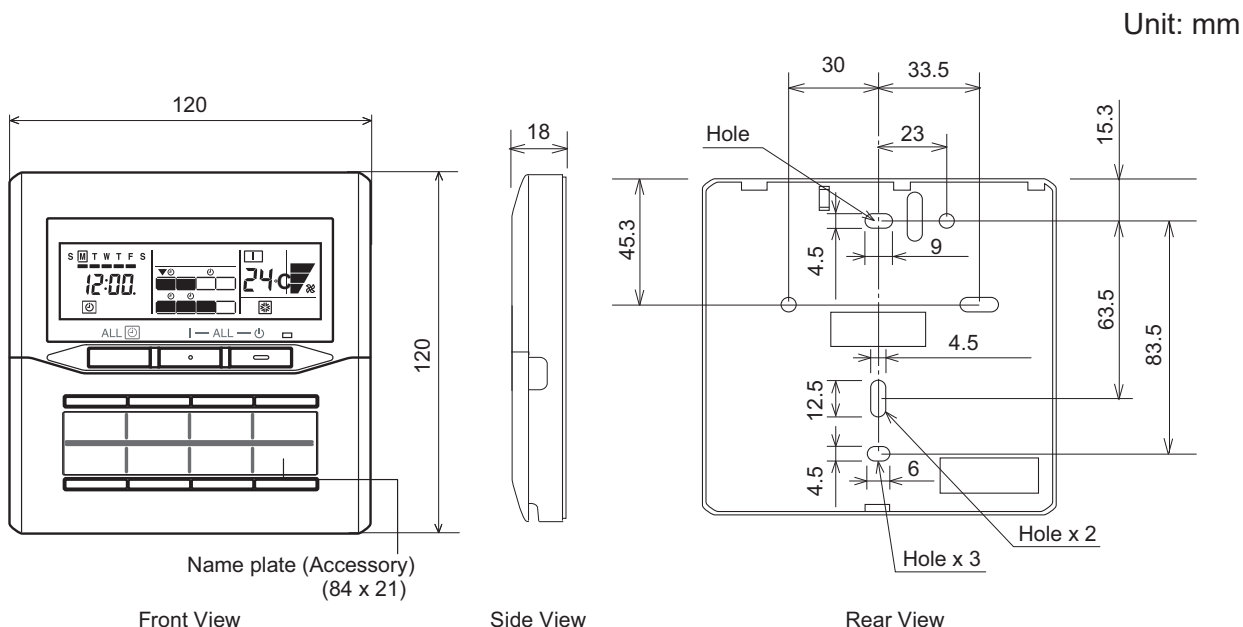Remote
controller cable

Network convertor
(UTY-VGGXZ1)

NOTES:

- Total remote controller cable length: Max. 100 m
- Connectable group remote controller: Max. 4 units/convertor
- Use of a terminal box is recommended when a junction is made in the wiring.

■ Electrical wiring

Group
Remote
Controller

1. 12 V
2. Signal
3. COM

Transmission
Line

Transmission
Line

Transmission
Line

SWITCH   FUSE (3 A)

1Φ 50/60 Hz
208-240 V

G

L   N
POWER

X1   X2
TRANSMISSION

Y1 Y2 Y3   J1 J2 J3
REMOTE   INDOOR UNIT
REMOTE CONTROLLER LINE

Power Supply   NETWORK CONVERTOR

Group remote controller cable
(Locally purchased) cross-section 0.33 mm^2
Polar 3-core, Shielded.

■ Dimensions

Unit: mm

120

120

Name plate (Accessory)
(84 x 21)

Front View

18

Side View

30   33.5

Hole

23

15.3

45.3

4.5   9

4.5

63.5   83.5

12.5

4.5   6

Hole x 2

Hole x 3

Rear View

■ Specifications

Power source voltage		V	1 Ø AC 100—240
Power source frequency		Hz	50/60
Input power		W	3
Display			5.0-inch TFT color LCD panel (QVCA)
LED indicator			Power LED (Green)
External interface			Transmission line
			External input: Either emergency stop, batch operation/stop, electricity meter (Either Dry contact or apply voltage can be selected.)
			External output: Operation state, error state
			Reset switch
Usage temperature range		°C	0 to 40
Usage humidity range		%	0 to 85 (no condensation)
Storage temperature range		°C	-20 to 70
Storage humidity range		%	0 to 85 (no condensation)
Dimensions (H × W × D)	Control unit	mm	120 × 162 × 25.7
	Power supply unit		99 × 135 × 39.2
Weight	Control unit	g	308
	Power supply unit		355
Fuse capacity		A	5

● Wiring specifications

Use	Cable size	Wire type	Remarks
Remote controller cable	0.33 mm^2 (22 AWG)	Polar 3-core	Use sheathed PVC cable or shielded cable in accordance with regional cable standard.

# 2-6. Wired remote controller (Touch panel: UTY-RNR∗Z∗)
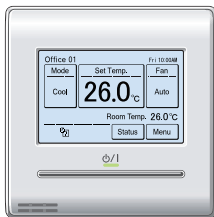
- Easy finger touch operation with LCD panel.
- Built-in Weekly/Daily time (On/Off, Temp., Mode)
- The backlit LCD enables easy operation in a dark room.
- Room temperature display
- Control up to 16 indoor units
- Corresponds to 12 different languages (English, Chinese, French, German, Spanish, Russian, Polish, Italian, Portuguese, Greek, Turkish, and Dutch)
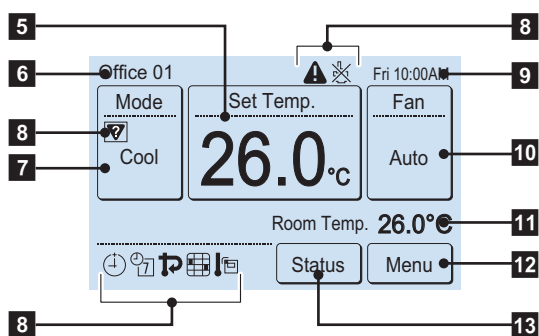
■ Accessory

Name and shape	Q'ty	Application
CD-ROM	1	
Screw	2	For installing the remote controller
Cable tie	1	For remote controller and remote controller cable binding
Installation manual	1	
Operation manual	1	

■ Overview
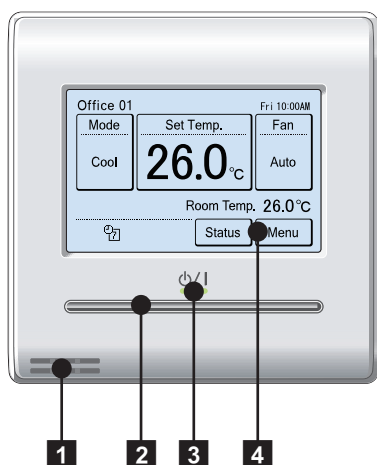
1 **Remote temperature sensor (inside)**

2 **On/off button**
Operable only while displaying the "Monitor mode" screen.

3 **LED lamp (operation indicator)**

4 **Touch panel display**

5 **Set temperature**
Operating temperature can be set.

6 **Remote controller group name**

7 **Mode**
Operation mode can be set.

8 **Status icons**

9 **Clock**

10 **Fan**
Fan speed can be set.

11 **Room temperature**

12 **Menu**
Various settings can be set.
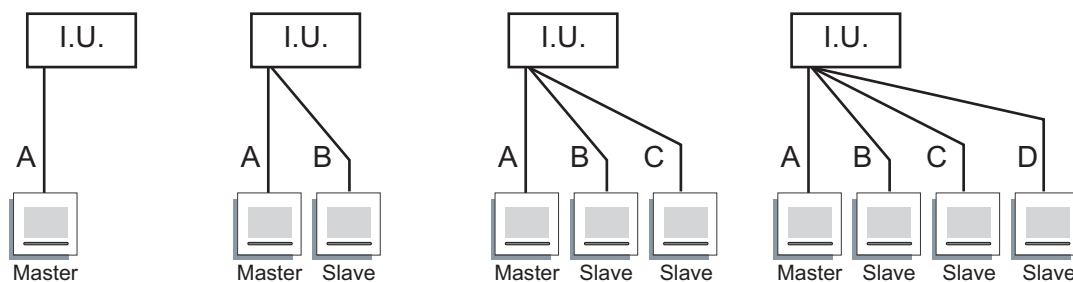
13 **Status**
Status of the indoor unit and error can be checked.

NOTE: Functions may differ by type of the indoor unit. For details, refer to the operation manual.

Display panel

■ System diagrams

- **Multiple remote control**
  Up to 4 remote controllers can be used to operate the indoor units.

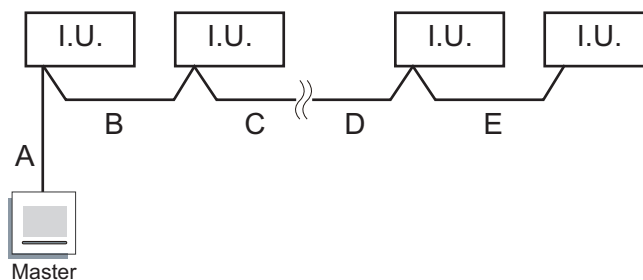A, B, C, D: Remote controller cable (For details of controller cable specifications, refer to "Controller cable" in Chapter 6. SYSTEM DESIGN.)

A ≤ 500 m, A + B ≤ 500 m, A + B + C ≤ 500 m, A + B + C + D ≤ 500 m

NOTE: Multiple installation method described above is prohibited to combine with 3-wired type remote controller (UTY-RNK∗, UTY-RSK∗, or UTY-RHK∗) and 2-wired type remote controller (UTY-RNR∗, UTY-RNR∗Z∗, or UTY-RLR∗)

- **Group control**
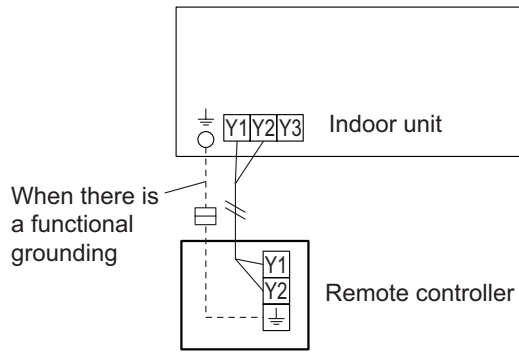 With a single remote controller, up to 16 indoor units can be simultaneously operated.

A, B, C, D, E: Remote controller cable (For details of controller cable specifications, refer to "Controller cable" in Chapter 6. SYSTEM DESIGN.)
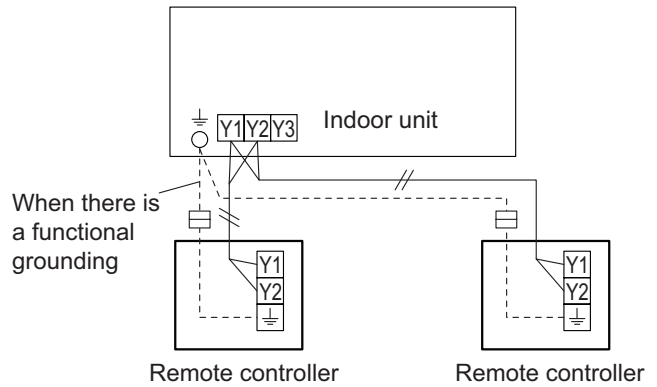
A + B + C + D + E ≤ 500 m
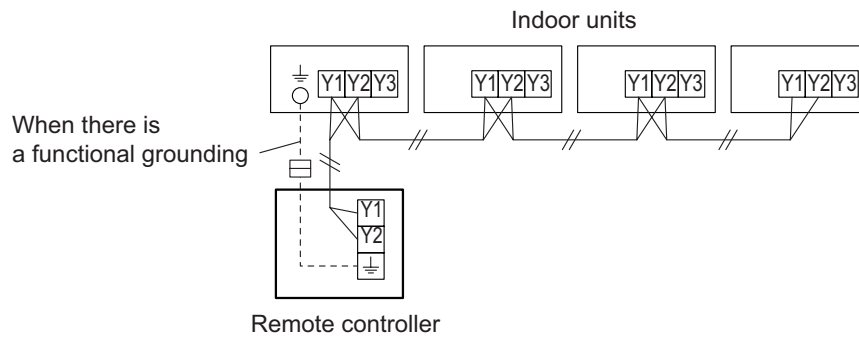
■ Electrical wiring

1 remote controller:

Indoor unit

When there is a functional grounding

Remote controller

2 remote controllers:

Indoor unit

When there is a functional grounding

Remote controller   Remote controller

Group control:

Indoor units

When there is a functional grounding

Remote controller

■ Dimensions

Unit: mm

120

120

20.4

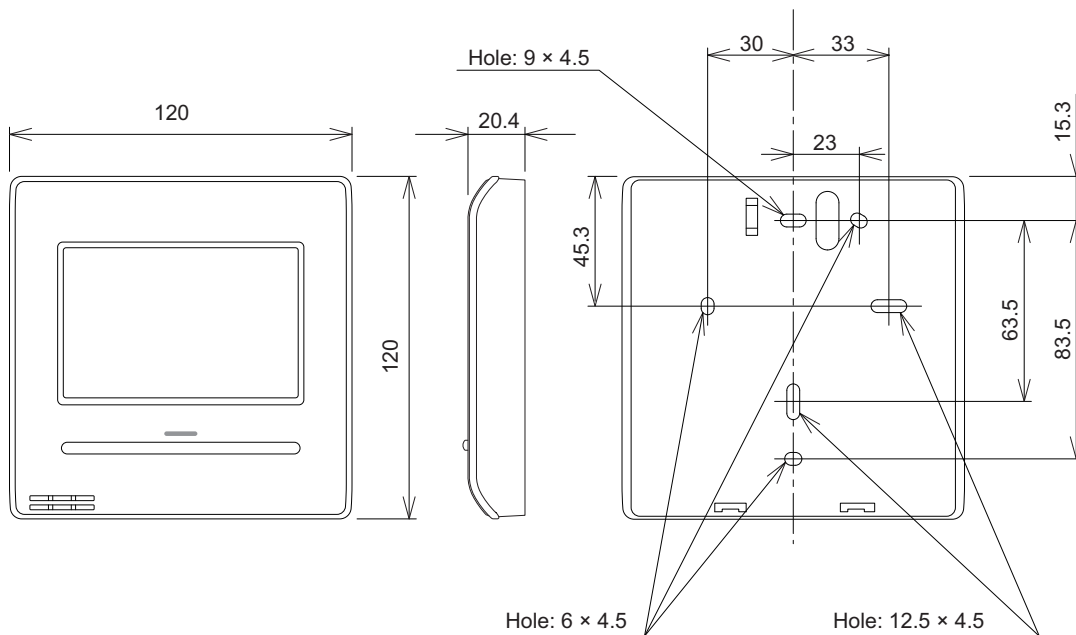Hole: 9 × 4.5

30   33

23

15.3

45.3

63.5

83.5

Hole: 6 × 4.5   Hole: 12.5 × 4.5

■ Installation space

- This product cannot be installed in wall.
- Recommendation installation height of the remote controller is from the floor surface to the bottom of the remote controller.
- Even when you install a remote controller to one of a switch box and the surface of a wall, secure the space shown in following figure. If spaces run short, it will become difficult to remove a remote controller.

Unit: mm
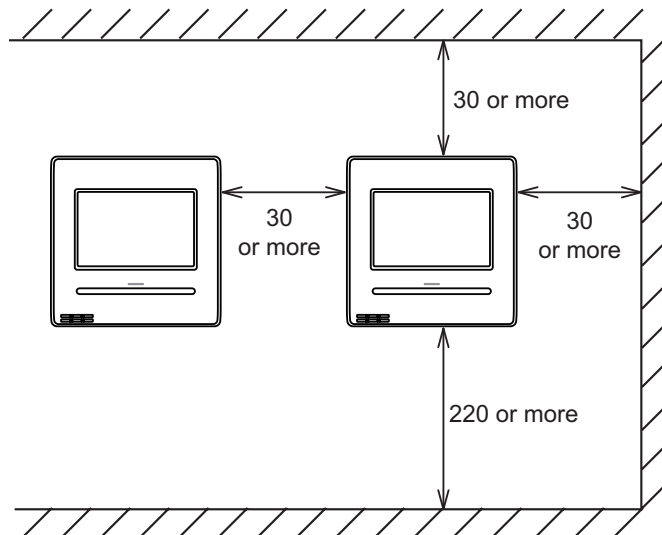
Secure enough space where a flat-blade screwdriver to take off a case can be inserted.

■ Installation

- **Connection pattern**

 NOTE: Connection pattern is different according to type of Indoor unit.

Indoor unit type	Connection pattern
All cassette type	Pattern A
All duct type	Pattern A
All floor type	Pattern A
Floor/Ceiling type	Pattern A
All ceiling type	Pattern A
All wall mounted type	Pattern B

- **Pattern A**
    1. Connect the end of remote controller cable directly to the exclusive terminal block.
    2. Set the DIP switch (SW1) to "2WIRE" on the PCB of the indoor unit.
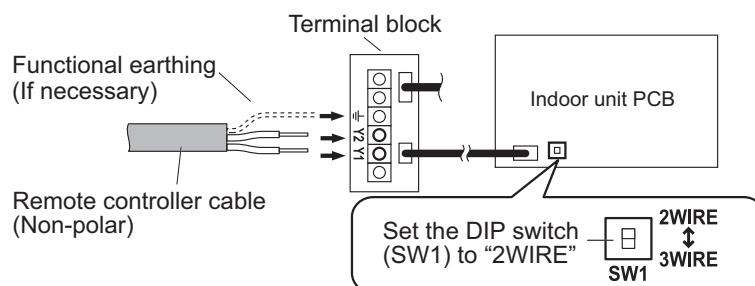

 NOTES:
    - Layout of terminal block and PCB is varies depending on the type of indoor unit.
    - Operation may fail if it is connected to the outdoor unit or the terminal block for power supply.
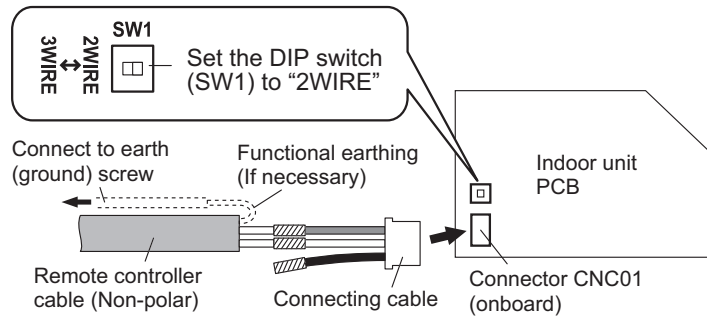
- **Pattern B**

    1. Use a tool to cut off the terminal on the end of the remote controller cable, and then remove the insulation from the cut end of the cable as shown below.

    20 mm

    Remote controller cable (Non-polar)
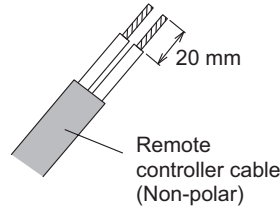
    2. Connect the remote controller cable and connecting cable as shown below. Be sure to insulate the connection between the cables.

    White
    Red
    Connecting cable
    Insulated connection
    Black
    Remote controller cable (Non-polar)
    Cut and insulate
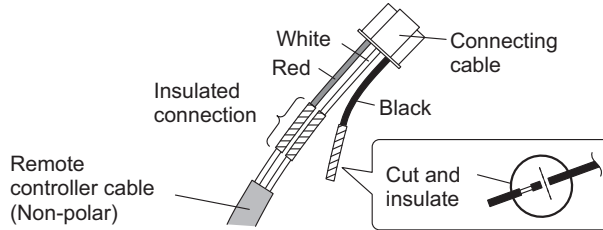
    3. Connect the remote controller cable to the connecting cable, and insert it to the connector. Set the DIP switch (SW1) to "2WIRE" on the PCB of the indoor unit.

    SW1
    3WIRE ↔ 2WIRE
    Set the DIP switch (SW1) to "2WIRE"
    Connect to earth (ground) screw
    Functional earthing (If necessary)
    Indoor unit PCB
    Remote controller cable (Non-polar)
    Connecting cable
    Connector CNC01 (onboard)

    NOTE: Layout of terminal block and PCB is varies depending on the type of indoor unit.

    Connector (adapter)
    SW1
    Indoor unit PCB
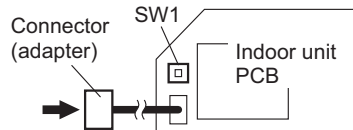
CONTROL SYSTEM

■ Specifications

Input voltage	V	DC 12
Power consumption	W	Max. 0.3
Display		3.8-inch FSTN LCD (255 × 160 dots) with touch panel
Usage temperature range	°C	0 to 40
Usage humidity range	%	20 to 90 (no condensation)
Storage temperature range	°C	-10 to 60
Storage humidity range	%	20 to 90 (no condensation)
Dimensions (H × W × D)	mm	120 × 120 × 20.4
Weight	g	220

● Wiring specifications

Use	Cable size	Wire type	Remarks
Remote controller cable	0.33 to 1.25 mm^2 (22 to 16 AWG)	Non polar 2-core	Use sheathed twist pair cable.*

*: Use shielded cable (locally purchased) in accordance with the regional cable standard.